

REMARKS

Reconsideration and allowance are respectfully requested. Claims 1-16 are currently pending in the application, with Claims 9-16 being newly added.

Claims 1 and 8 stand rejected under 35 U.S.C. 102(b) as being anticipated by Dixit et al. (U.S. Patent 4,960,732). Applicant respectfully traverses the rejection for the following reasons.

Applicant submits that the present invention provides a method of forming a contact plug in a semiconductor memory device capable of suppressing diffusions of dopants implanted into a contact simultaneously in order to prevent an increase of contact resistance. For the above-mentioned object of the present invention, the present invention includes the step of doping dopants in a manner which allows the conductive layer to have different doping distributions with respect to the thickness of the conductive layer.

However, the above-mentioned step of doping dopants of the present invention is neither disclosed nor even suggested by Dixit et al.

Instead, the method of Dixit et al. includes the steps of forming an adhesion and contacting layer and forming a barrier layer that the present invention does not need (see FIGs. 1A to 1D of Dixit et al.). Moreover, the conductive layer 22 of Dixit et al. is formed on the barrier layer 20 while the polysilicon plug 37 of the present invention is formed on the substrate 31.

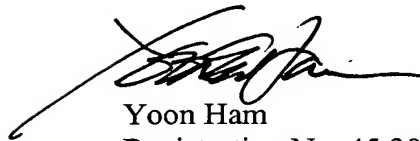
Therefore, Applicant respectfully asserts that the present invention is different from the cited reference. Accordingly, Applicant believes that all pending claims 1-8 are patentable. In addition, Applicant has added claims 9-18, which are supported by the specification.

The Applicant believes the application is in condition for allowance. Should the Examiner have any suggestions to place the application in even better condition for allowance, Applicants request that the Examiner contact the undersigned representative at the telephone number listed below.

Appln. No. 10/614,513

Respectfully submitted,

PIPER RUDNICK LLP

A handwritten signature in black ink, appearing to read 'Yoon Ham', is written over a horizontal line.

Yoon Ham
Registration No. 45,307
Attorney of Record

P.O. Box 9271
Reston, VA 20195
Tel. No. (202) 861-3871